TRANSACTIONS

OF THE

NEW YORK SURGICAL SOCIETY.

Stated Meeting, February 24, 1904.

The President, HOWARD LILIENTHAL, M.D., in the Chair.

TRAUMATIC RUPTURE OF SPLEEN; SPLENECTOMY.

DR. IRVING S. HAYNES presented an Italian boy, nine years old, who, on December 28, 1903, at one o'clock in the afternoon, was run over by a light buggy, the wheel (or wheels) traversing his body from the splenic region to the left groin, and down between the legs.

On admission to the hospital the patient was in a condition of shock, but conscious. The abdomen was rigid and tender over the splenic and left inguinal regions, and the child complained of colicky pains. Upon admission, his temperature was 97.8° F.; pulse, 92; respirations, 26. After the administration of a saline enema, an ice-cap was applied to the abdomen, and the patient was stimulated with strychnine and whiskey. At 5 P.M. his temperature had risen to 100.3° F.; pulse, 104; respirations, 28. At 9 P.M. his temperature was 100° F.; pulse, 138; respirations, 40. At 1 A.M. his temperature was 98.6° F.; pulse, 140; respirations, 48. As the patient's condition was evidently growing worse, and evidences of internal hæmorrhage were more marked, an exploratory laparotomy was deemed advisable. Under chloroform anæsthesia an incision was made in the median line, a little below the umbilicus. The abdominal cavity was found filled with bloody fluid, which escaped on opening the peritoneum. The intestines

were hastily examined, but nothing found. As the child had complained of pain over the upper left quadrant of the abdomen, a second incision, four inches long, was made in the left semilunar line. On palpating the spleen, that organ was found to be ruptured, its entire anterior border being severed from the body of the organ with the exception of a very narrow pedicle. The severed section was about the size of an adult forefinger. The incision was enlarged by a right-angled cut running two inches to the left. The spleen was then loosened from its attachments and brought near the opening, with the intention of placing a row of mattress sutures parallel with the crushed surface and removing the torn section. As the organ was being carefully manipulated, and the pedicle held between the fingers, something was felt to loosen and slip. Fearing that a rupture of the blood-vessels was imminent, a clamp was at once placed upon the pedicle and the spleen cut away. A catgut ligature (chromic, No. 2) was then placed on the pedicle internal to the clamp, which was left in place as an additional safeguard. The child's condition being very serious, a saline enema was administered and hypodermic stimulation was freely resorted to. The abdominal wounds were rapidly closed with through-and-through silkworm-gut sutures.

On the first day after the operation the temperature reached 101.6° F.; pulse, 132; respirations, 52. Free stimulation and saline enemas were resorted to. During the day the child vomited some brownish fluid. On the following day the temperature reached 102° F.; pulse, 138; respirations, 40. On this day the patient vomited a bright green fluid. The clamp was removed. On the third day the temperature fell to 100° F.; pulse, 136; respirations, 38. Saline and nutrient enemas were continued. The patient had three stools. The urine was normal. From this time on convalescence was uneventful until the twentieth day, when the temperature suddenly rose to 106.2° F.; pulse, 152; respirations, 32; this followed a distinct chill during the night. A physical examination of the chest revealed slightly roughened breathing sounds. This soon cleared up, and the temperature fell to normal within twenty-four hours. The patient was discharged cured on January 31, 1904.

The following was the result of blood examinations made by Dr. Krauskopf:

January, 1904.	White Cells.	Red Cells.	Hæmoglobin, Per Cent.
3	20,600	4,800,000	85
5	18,600	4,700,000	85
7	17,600	4,950,000	90
9	16,000	4,800,000	95
11	20,000	5,000,000	100
14	18,000	5,000,000	100
31	18,000	5,000,000	100

Urine, normal.
Fæces, normal.

PERFORATED GASTRIC ULCER.

Dr. Charles H. Peck presented a man, aged twenty-three years, who was admitted to Roosevelt Hospital, in the service of Dr. Robert F. Weir, at 5 A.M., January 10, 1904. A diagnosis of perforated gastric ulcer had been made by the ambulance surgeon. This was confirmed by the house surgeon and the operator, and an immediate operation was performed four hours after the onset of acute symptoms of perforation.

The patient's history was as follows: Measles in childhood, pneumonia three years ago. For two years the patient has been troubled with indigestion; after eating he would have severe abdominal pain, knife-like in character. He frequently vomited soon after eating; sometimes the pain was so severe that he irritated his pharynx and made himself vomit; he had never vomited blood, nor passed blood by the bowels. Five months ago he was in Bellevue Hospital for a week for his pain after eating. Was told it was imaginary and sent home.

Present Illness.—Last night at nine o'clock he ate a light supper, as he did not feel well; had some abdominal discomfort. He went to bed about twelve o'clock, and about two hours later he was awakened by a terrible sudden cramp in the stomach; he cried out in agony, and felt a desire to defecate. He felt terribly weak and prostrated; the pain continuing, he drank a lot of water, which he soon vomited; it was bloody; two hours later the ambulance was sent for and he was brought to the hospital.

On admission his temperature was 98.4° F.; pulse, 124; respirations, 28. There was marked general tenderness over the entire abdomen, with extreme rigidity, both tenderness and rigidity being greatest in the epigastrium. No loss of liver dulness was noted; distention was very moderate; face pale, drawn, and anxious.

Operation at 6 A.M.; ether. A four-inch median incision above umbilicus; on opening peritoneum a quantity of gas and some turbid serum escaped. Pyloric end of stomach was pulled into view, and a perforation about one-fourth inch in diameter exposed on anterior aspect of pylorus, from which gas and fluid were escaping. Stomach wall for some distance around perforation was much thickened and infiltrated, the cystic duct and pylorus being matted together in the inflammatory mass. The perforation was buried with three tiers of continuous Lembert sutures of black silk, with some difficulty on account of infiltration of tissues. Escaped stomach contents and turbid serum bathed the entire peritoneal surface except lesser cavity; a considerable quantity was present in the pelvis and in both flanks, also between liver and diaphragm. Thorough flushing with a Blake tube and salt solution until fluid returned clear; a cigarette drain then placed down to suture line in stomach wall and the rest of wound closed by layers.

Course.—Temperature rose to 102° F. after operation, then gradually fell, remaining below 100° (rectum) after the third day; pulse, 130 after operation, dropped to 80 on third day and remained normal. The day following the operation he vomited a few times, the vomiting at one time being projectile in character; his bowels were moved by enema thirty hours after operation, and the vomiting soon subsided. Saline enemata and later nutritive enemata were given for the first three days. Hot water by mouth on the second day, milk up to four ounces every two hours on the third day. Solid food was commenced on the eighth day and increased gradually. Sat up on the nineteenth day and left the hospital well on February 1, the twenty-second day after the operation.

DR. PECK also presented a man, aged twenty-two years, who was admitted to Roosevelt Hospital, in the service of Dr. Robert F. Weir, early in the evening of January 21, 1904.

The probable diagnosis of perforated gastric ulcer was made by the house surgeon. His history was as follows: He had been troubled with pain in left inguinal region and outer and anterior aspect of thigh for some months, and had been under treatment for it. Was never troubled with indigestion until about three weeks before admission, since when he has had pain after eating and occasional vomiting. He worked as usual on the day

of admission until 4 P.M., when, after lifting some heavy glass, he was suddenly seized with severe cramps in the abdomen. He was obliged to stop work immediately and went to a neighboring saloon, where he was given a drink of brandy. He vomited it in a few minutes, and the pain became so violent that he laid on the floor and rolled in agony; the ambulance was sent for at once.

On admission his temperature was 102.2° F.; pulse, 124; respirations, 28. Leucocyte count, 16,000. There was marked general tenderness and rigidity over entire abodmen, somewhat greater above umbilicus, but not distinctly localized. The greatest pain was in left inguinal region and upper, anterior aspect of thigh, the old location. There was almost complete loss of liver dulness, and flatness in both flanks, which changed its level as patient was turned from side to side. No distention. Cardiac and pulmonary signs normal; general condition good.

Operation at 10 P.M.; ether. A four-inch median incision above umbilicus. Gas escaped on opening peritoneum, with some turbid serum. Flakes of lymph seen on anterior surface of stomach and under surface of liver, as well as on surrounding peritoneum. The anterior surface of the stomach was lightly adherent to the under surface of the liver by recent lymph; when separated by the hand, a perforation in the anterior stomach wall, about 1.5 to two inches from pylorus and midway between greater and lesser curvatures, was seen; it was about one-fourth inch in diameter, and gas and stomach contents escaped; the stomach wall around it was much thickened and indurated for a radius of one inch or more. The opening was closed with two tiers of black silk continuous Lembert stitches. The entire abdominal cavity was then irrigated thoroughly with a Blake tube and salt solution, and considerable turbid fluid washed from flanks and pelvis and subdiaphragmatic region. A single large cigarette drain was placed down to suture line, and the abdominal wall closed by layers except at this point, no attempt being made to drain peritoneal cavity. The usual dressing of moist bichloride and dry gauze; time, 50 minutes; condition good.

Course.—Vomited twice while coming out of ether; not at all afterwards. Temperature ranged from 100.6° to 102.2° F. during the first three days, gradually falling to 100°, the pulse ranging from 136 down to 108. Saline enemata were given for the first day; hot water by mouth in small quantities during the second

day. Bowels moved by enema on second day. On January 24, the third day after operation, his temperature suddenly rose to 103.4° F.; pulse, 140; he was very restless, and coughed a good deal. The wound was dressed and showed no signs of infection; the abdomen was soft and the leucocyte count 9000. From this time on convalescence was uneventful, the temperature remaining below 100° F. and pulse below 90 after the fifth day. The drain was removed on the fourth day and all drainage left out after the sixth day. Milk and lime water by mouth commenced on the fourth day, soft diet on the eighth day. Sat up on February 10, nineteen days after operation, and left the hospital well on February 13, twenty-two days after the operation.

STRANGULATED HERNIA, WITH RESECTION OF THE INTESTINE.

DR. PECK presented a man, aged forty-seven years, who was admitted to Roosevelt Hospital, in the service of Dr. Robert F. Weir, January 17, 1904. For twenty years the man had had a reducible right inguinal rupture. He wore a truss at intervals, and at times the hernia would disappear for a year or more and be apparently cured, until some strong exertion brought it down again. Six months ago it was irreducible for two days. Patient never had any very serious illness. He is a moderate user of alcohol.

Present Illness.—Eight days before admission, the rupture came down and could not be reduced. It had gradually become more and more tender and painful. Five days before admission he began to vomit with increasing frequency, and for two days could retain nothing whatever.

His vomitus had never been fæcal. His bowels had not acted for five days and the abdomen was somewhat distended. His general condition was fairly good. Locally, there was an oblique, irreducible, tender, tympanitic, inguinal hernia the size of a goose-egg (on the right side). Skin not discolored over it. There was a distinct impulse on coughing, which suggested that the hernia was obstructed, not strangulated. The right testicle was not in the scrotum.

Operation, four hours after admission by the House Surgeon, Dr. Whittemore. Ether. Incision as for ordinary Bassini. The

tunic of the undescended right testicle (which lay just outside the inguinal canal) was first opened by mistake. On opening the sac a small amount of turbid fluid escaped and a loop of small intestine, four inches in length, of very dark color and slightly coated with lymph, was disclosed. After dividing the constricting band and drawing down the loop, the major portion of the gut slowly regained its color. An area about the size of a dollar at the point of constriction, however, did not recover, and after waiting ten minutes a resection was decided upon. In order to get normal intestine for approximation, about eight inches were resected. The ends were united with a medium-sized Murphy button in the usual manner, reinforced all around with continuous Lembert sutures. In order to return the button to the abdominal cavity, it was necessary to divide the internal oblique and transversalis for about an inch at their origin from Poupart's ligament. The button was left just inside the ring, and a single cigarette drain placed, leading down to it. The wound was closed, as far as practicable, according to Bassini.

Postoperative Course.—No vomiting after operation. Several enemata of saline were given for thirst in first twenty-four hours; then water was given by mouth and soon afterwards milk. At the end of sixty hours an enema was returned with a fair amount of fæcal matter. Wound dressed on fourth day and a narrow gauze tape substituted for cigarette drain. Wound closed rapidly. A cathartic was never given, his bowels remaining open with the aid of an occasional enema. Patient was kept on "soft diet" until after the escape of the button. On the nineteenth day an X-ray picture located the button in the upper pelvis, but it could not be felt, nor did high enemata bring it away. It was discharged spontaneously on the twenty-fourth day. Discharged, cured, on February 14, the twenty-eighth day after operation.

CONGENITAL DEFORMITY OF THE RIGHT LOWER EXTREMITY.

DR. ROYAL WHITMAN presented a female child, three years of age, with a congenital defect of the right lower extremity, the fibula on that side being entirely absent. As a result of this defect, there was considerable shortening, and, in order to remedy this, a surgeon who had seen the patient soon after birth had shortened the other limb by removing a section of the femur. The remedy

did not prove effective, however, for, as in all cases of this type, the shortening had been progressive, amounting at the present time to two and one-half inches. The chief interest in the case was the remedy that had been employed.

FRACTURE OF THE FEMUR PRODUCED BY AN OBSCURE LESION OF THE BONE.

DR. WHITMAN presented a young man, who came to the Hospital for Ruptured and Crippled a few weeks ago, with a resistant enlargement of the upper third of the right thigh, and about one inch shortening on that side. He stated that up to four months ago he was perfectly well. Then, without apparent cause, he began to have some pain about the right hip. This pain was severe enough to keep him in the house. About a week after its onset he accidentally kicked a chair, and immediately fell to the floor. The leg was entirely useless, and he was obliged to remain in bed for about a month. He was then able to go about the house with the aid of two sticks, and three weeks later he began to go out. In the meantime, an enormous swelling had developed over the upper part of the thigh, and when the patient was first examined the case was regarded as one of sarcoma of the femur, with spontaneous fracture. Since then, however, the swelling, instead of increasing, has become somewhat less. An X-ray photograph was taken, which showed that the fracture had occurred in the neighborhood of the trochanter minor. There was moderate outward rotation of the limb, firm union, and the patient walks about without discomfort.

Dr. Whitman said the only way he could account for the course of events in this case was that the weakness and subsequent fracture of the bone were due to the presence of a congenital cyst or to a mild form of osteomyelitis. The swelling he attributed to the deformity and exuberant callus resulting from improper apposition of the fragments. The speaker said he had never seen a parallel case.

DR. F. KAMMERER said he did not think the diagnosis of sarcoma could be absolutely excluded, because the growth had lately decreased somewhat in size. It was still rather large to be attributed to exuberant callus. In answer to a question of the President as to the nature of the growth in the bone (femur) of a case he had shown at the meeting of the Society some months ago

(ANNALS OF SURGERY, January, 1904), the speaker said that on cutting down upon the femur he found a hard, fibrous mass occupying the entire medullary canal. It extended from the trochanter down to the condyles at the knee, and, after chiselling open the whole bone, the mass could be removed in large pieces. The pathologist reported that the growth was purely fibrous in character. There had been no evidences of a recurrence, and since the operation the bone cavity was gradually filling up with granulation tissue. The deformity had increased, and a secondary operation would be necessary to correct it. Sarcoma and syphilis must be excluded. The case was certainly a very unusual one. Perhaps the further course might throw additional light on the etiology.

DR. WHITMAN said the X-ray picture apparently showed an overlapping of the short upper fragment. The callous formation was exuberant, but not more perhaps than might be explained by an untreated fracture. If the case were malignant in character, such a rapid union of the bone would be very unusual. The man gave no history of syphilis, and showed no evidences of that disease; and if syphilis could induce such fragility, it would also prevent union in all probability.

INTESTINAL OBSTRUCTION FOLLOWING OPERATION FOR APPENDICITIS.

DR. JOHN ROGERS presented a young man who was operated on for appendicitis about two years ago. On September 29, 1903, he committed some indiscretion in diet, and on the following day he vomited and passed some gas per rectum. On the following three days "bilious vomiting" continued, and the patient complained of some pain in the abdomen, but he was able to go about.

On the fifth day of the attack, when Dr. Rogers first saw him, the patient appeared fairly comfortable, but a little weak from lack of food. There were no abnormal physical signs. The mother stated that an enema had brought away some fæcal matter, and that gas had been passed. The urine was scanty. The patient's temperature was 101° F.; pulse, 125.

Because of the lack of physical signs, it was decided to postpone operative interference. During the next twenty-four hours the vomiting continued, and on the seventh day it had a fæcal odor. An exploratory operation was therefore decided on, although the belly was still perfectly soft; there was no distention,

rigidity, or pain. A median incision was made just below the umbilicus, and upon inspection a band was found starting at the cæcum, passing upward and inward along the free border of the omentum, and constricting the jejunum transversely at a point about two feet from its origin. After dividing the band, this underlying intestine presented a ring of gangrene about one-half an inch wide where it had been constricted, and it was therefore necessary to resect the gut at this point. The two divided ends were then brought together over a Murphy button. The patient made an uneventful recovery. The button was passed on the thirty-eighth day.

The case was interesting, Dr. Rogers said, on account of the total absence of any local signs of obstruction, and because of the small quantity of urine secreted during the patient's illness. On the last day of his illness he did not pass any urine This last symptom, Dr. Rogers said, had been noted in a number of cases where the obstruction of the intestines was high up. In addition to all this there is of course the interest attaching to the obstruction which followed, and seemed directly dependent upon the preceding operation for appendicitis. A subsequent obstruction seems a possibility, which, though remote, is unavoidable.

Dr. Charles L. Gibson said the question arose whether the adhesive bands were the result of an operation for appendicitis or were due to the primary condition. In the latter case, they should be regarded as an additional element of danger, and emphasized the importance of the prophylactic treatment of appendicitis by operating during the quiescent stage. The speaker said that personally he was inclined to believe that the bands were the result of the appendicitis, and not the operation.

Dr. Charles H. Peck said that very recently he saw a case of intestinal obstruction at Roosevelt Hospital following an operation for appendicitis. The operation, which was an interval one, had been done about a year before, and no drainage had been employed. The cause of the obstruction was an adhesive band constricting the ileum. The patient was in a very bad condition, and died from the effects of the operation. Dr. Peck said this was the only case he had seen where adhesive bands causing obstruction had followed an interval operation.

Dr. John F. Erdmann said he thought it was a question whether the band in the case reported by Dr. Rogers was a result

of the operation for appendicitis, or a pre-existing condition, and one of the causes that demanded the primary operation. The speaker said he had recently seen two cases of appendicitis where these bands were found, and where no previous operation had been done.

DR. PECK said that in the case he had mentioned, the presence of the adhesive band had appeared to him to be a postoperative condition. He did not think it was present prior to the primary operation, although he was unable to make any positive statement on that point.

DR. ELLSWORTH ELIOT, JR., said he had seen two cases of intestinal obstruction after interval operations for appendicitis, one six months after the primary operation, the other eight months. In both cases, the speaker said, he had done the original operation, and in one of them the secondary operation also. In the first case, which was followed by intestinal obstruction, the stump of the appendix was cauterized and dropped back, and when the abdomen was subsequently reopened to relieve the obstruction it was found that adhesions had formed to the stump of the appendix. Warned by that experience, Dr. Eliot said he had since inverted the stump; but in spite of that procedure, he had had one other case where obstruction occurred. One of his cases recovered. In the other, where the operation was done outside the hospital, the patient died. Dr. Eliot said he had heard of other cases where intestinal obstruction developed after an interval operation for appendicitis.

DR. LILIENTHAL said he thought the method of inverting the stump of the appendix would invite the formation of adhesions, while simple cauterization of the stump would prevent them. In the latter case the little stump was cast off in a very few days, and with it any adhesions which might have formed. The speaker said he had had the opportunity of examining a number of those cases, and had reported his experience in a paper which recently appeared in the *New York Medical News.* He had never seen adhesions at the point where the appendix had been cut off and cauterized, and he regarded that method as safer and more rapid than the inversion method.

SOME REMARKS ON TUMORS OF THE CHIASM, WITH A PROPOSAL HOW TO REACH THE SAME BY OPERATION.

DR. OTTO G. T. KILIANI read a paper with the above title, for which see page 35.

DR. LILIENTHAL said that in his capacity of chairman of the medical equipment committee of the new Mount Sinai Hospital he had investigated the subject of surgical engines, but the committee had not yet decided which one to purchase. He suggested that the handle of the instrument should be so constructed that it could be held steady, and every precaution should be taken not to lacerate the dura. With the old-fashioned instrument for cutting through the skull, the breaking of the cables caused a good deal of annoyance. In the drilling-engine used by dentists, a cord and jointed arm were substituted for the cable, and this gave much better satisfaction, because it was less likely to get out of order and was easily repaired. Dr. Lilienthal said that dentists had recommended, as the best surgical engine, one devised by Dr. Cryer, of Philadelphia, a dentist. It was expensive, but very powerful and adaptable.

DR. KILIANI said that with the instrument he had described the fraise was of tempered steel, and cut so readily that extreme pressure upon the handle was unnecessary; in fact, it could be held almost as lightly as a pencil. There was little or no danger of injuring the dura.

Stated Meeting, March 9, 1904.

The President, HOWARD LILIENTHAL, M.D., in the Chair.

RESECTION OF KNEE FOR TUBERCULOSIS.

DR. JOHN A. HARTWELL presented a negro, twenty-eight years old, who was admitted to the Lincoln Hospital in March, 1902, with the history of having had some trouble with the left knee, the condition having existed about a year. It began with pain, and went on to a typical case of tuberculosis of the knee-joint. When he first came under observation there was a large quantity of fluid in the joint and over the internal tuberosity of the tibia, and the suppuration had progressed to such a degree that the bone was almost exposed.

Upon opening the joint through a transverse incision, it was found that the lower end of the femur was more or less diseased, and about one inch of the bone was removed. In the tibia the disease had extended down into the medullary canal for a distance

of fully two and one-half inches, and, as a radical operation would have necessitated the removal of at least three inches of the bone, it was deemed advisable to resect only the articular end of the tibia, scrape out the diseased tissue in the medullary cavity, and then fill it with an emulsion of iodoform. All the tubercular tissue in the capsule and in the periarticular spaces was carefully cleaned away and the lower end of the femur and the upper end of the tibia were then sutured with chromic gut. The wound discharged freely for several weeks, but finally healed entirely with the exception of a small sinus, through which a piece of chromic gut was removed about a year after the operation. Ankylosis was complete, and the patient walked with a slight limp only. In reply to a question, Dr. Hartwell said there was an inch and one-half shortening on the affected side.

INGUINOPERINEAL HERNIA.

Dr. William B. Coley presented a man, thirty-eight years old, who was operated on in September, 1902, for this very rare variety of hernia, in which the testis and hernial sac occupied the perineum instead of the scrotum. At the time of the operation, the testis was considerably atrophied; it was transplanted into the empty scrotum, but, on account of the rather short cord, it could not be carried down into the bottom of the scrotum.

Dr. Coley said he had operated on five similar cases, in one of which the tumor was as large as a cocoanut. In three of his cases he had successfully transplanted the testis into the scrotum. All of these cases were on the right side.

FOREIGN BODY (WOVEN BOUGIE) IN RETROPERITONEAL SPACE.

Dr. Howard Lilienthal presented a woman, twenty-nine years of age, who was admitted to hospital on December 1, 1903. She had been married four years, had had one child and two miscarriages. The last abortion was said to have been self-induced on July 1, 1903, in the early months of pregnancy, by means of the introduction of a woven instrument. This woven bougie, previously boiled, and used only after the patient had washed her hands and taken a douche, was said to have been inserted into the uterus and left there. The next day there were cramps and some slight bleeding, one clot of considerable size being expelled. The instrument was not found after the abortion. Menstruation ap-

peared again in October, and again in November, there having been no appearance of blood in the meantime. For five weeks after the introduction of the bougie the patient was sick in bed with chills and fever, accompanied by profuse sweating and a throbbing pain in the left side from the pelvis to the ribs, and in the right loin. A swelling appeared soon after the miscarriage, occupying the left iliac region. It was quite tender to pressure. The patient had been out of bed since the 17th of August, but said that she had occasional fever and rapid pulse. She had lost twenty-two pounds in weight from July 1 to the date of her admission, December 1.

On examination, a hard mass, the size of a large fist, was felt occupying the left iliac region, and apparently adherent to the abdominal wall. From the upper section of this mass, a long, indurated portion extended upward, apparently along the posterior abdominal parietes, about in the direction of the ureter, until it was lost beneath the ribs. The entire mass was but slightly sensitive to pressure. Examination by vagina and by rectum did not indicate close relations with the pelvic organs.

The patient's general condition was very good, and there was little, if any, abnormality of pulse or temperature.

On December 5, under gas and ether anæsthesia, Dr. Lilienthal made an incision into the lower portion of the mass through the abdomen. After penetrating to the depth of about an inch into tough, indurated tissue, he decided to perform cœliotomy through the same external incision alongside of the tumor. Intra-abdominal palpation revealed the fact that the pelvic organs were perfectly free, and that the extension of the tumor upward along the line of the ureter was also absolutely free from adhesions with the viscera. Apparently the instrument had not passed through the uterus, but had been forced through the vaginal fornix, and had penetrated the retroperitoneal space. The original incision into the mass was now deepened for another half inch and he came upon a hard, cylindrical body, the bougie, lying perfectly free in a tube-like canal which it exactly fitted. On withdrawal, the instrument, which had lost its proximal capping and was therefore open, was found to be filled with a purulent fluid. The bougie was a No. 13 French, considerably the worse for wear. A rubber tube somewhat smaller than the bougie was inserted into the sinus for drainage, and the peritoneal wound closed by suture. Drainage was not satisfactory, and on December 19 the patient

was again anæsthetized and a counteropening in the loin made by cutting down upon a large-headed probe passed into the sinus. A viscus, thought to be the colon, was encountered, and had to be carefully incised in order to identify it. Finding it to be indeed the large intestine, the opening was closed by silk suture and counterdrainage by tube finally accomplished. The wound in the colon broke down, so that there was for a time a fæcal fistula, and the patient also passed through a severe tonsillitis and a lobar pneumonia. The drainage was efficient, however, and all wounds closed by February 15, the patient being discharged well after a stay of two and one-half months in the hospital.

CHOLECYSTECTOMY.

DR. F. KAMMERER presented a man, twenty-nine years old, who was perfectly well until a month before the operation. He then began to complain of severe pain in the epigastrium, with chills and vomiting. He had three similar attacks during the month, the last just before his admission to the hospital, this time associated with pain in the back and shoulder. Examination showed a large tumor over the site of the gall-bladder, with all the symptoms of an acute inflammatory condition.

The gall-bladder was exposed by Robson's incision. It was found much enlarged and filled with stones. The omentum was adherent to it, especially around its tip. At this point, after separation of the adhesions, which was easily accomplished, a patch of gangrene about the size of a silver quarter was found, and in the centre of this a perforation large enough to admit an ordinary lead-pencil.

The gall-bladder and part of the cystic duct completely filled with stones were removed. Recovery was uneventful.

DR. KAMMERER presented a second patient, a woman, fifty years old, who had had several attacks of biliary colic during the past two years. At the operation the gall-bladder was found filled with stones considerably thickened and tied down by numerous adhesions. It was freed with considerable difficulty, and extirpated. A search of the common duct was then made for further stones. Palpation of the deep ducts did not reveal the presence of further stones, and a probe was passed through the cystic and common ducts apparently without encountering any resistance.

The patient recovered from the operation, but a biliary fistula remained, all attempts to force the bile into the intestinal tract

failing. Upon reopening the abdomen several months later at least half a dozen stones were found in the common duct, which was slit open in its entire length. Just above the papilla there was a mass of inspissated bile about the size of a finger-nail.

After suturing the common duct, the stump of the cystic duct was opened and drained through the old wound. Unfortunately, the sutures in the common duct gave way, and for a long time there was a discharge of bile through the new incision. After four or five months both wounds finally closed.

Dr. Kammerer said that in this case the stones in the common duct were evidently overlooked at the first operation, in spite of a fairly thorough search and probing.

PRIMARY CHOLECYSTECTOMY: SCOPE, METHOD, AND RESULTS; CONCLUSIONS FROM FORTY-TWO CASES IN THE PRACTICE OF THE AUTHOR.

Dr. Howard Lilienthal read a paper with the above title, for which see page 44.

Dr. Charles L. Gibson said it was scarcely four years ago when he presented the first case of primary cholecystectomy that had ever been shown at a meeting of this Society, and at that time Dr. Lilienthal rather opposed the operation. Since then, apparently, he had gone almost to the other extreme, and the tone of his paper was so optimistic that it gave one the impression that cholecystectomy was not only as safe, but safer than ordinary cholecystotomy. If that interpretation of Dr. Lilienthal's paper was correct, Dr. Gibson said he would take issue with him. He did not regard the actual removal of the gall-bladder as innocuous an operation, or less so, than one consisting of simple drainage of the gall-bladder. Theoretically, cholecystectomy possessed the advantage of removing the focus of infection, of doing away with the possibility of a mucous or biliary fistula, and of a recurrence of pain due to adhesions. A persistent fistula after cholecystectomy meant an incomplete operation.

Under certain conditions, Dr. Gibson said, the operation of cholecystectomy was certainly indicated, but it should not be undertaken unless some definite object was to be accomplished by it. Simple drainage of the biliary passages could be done perfectly well by cholecystectomy without opening the lower duct, by leaving the cystic duct open.

The reader of the paper mentioned hæmorrhagic diathesis as

a contraindication to the performance of cholecystectomy. While this was so theoretically, it would also apply to cholecystotomy. The speaker said he had seen two patients succumb to hæmorrhage after simple drainage operations on the gall-bladder.

DR. WILLY MEYER said that during the past twelve years, when he first took up gall-bladder surgery, he had done more cholecystostomies than cholecystectomies, and the results of the former operation, so far as a recurrence of the colicky pains, etc., was concerned, were extremely satisfactory. On two occasions he had opened the gall-bladder, taken out the stone, and immediately closed the wound. In both of those cases the patients got well, but the speaker said he did not favor the operation. At present he was also opposed to the performance of cholecystectomy in every case of gall-stones. He recalled two instances where the operation was followed by a recurrence of the colicky pains; there was no recurrence of the jaundice, but the pains were more severe than he had ever seen after cholecystostomy, and were attributed to the formation of adhesions. In every case, however, where the gall-bladder was thickened or materially changed in appearance, it ought to be removed. The speaker recalled a case where he had operated for acute empyema and did not add extirpation of the bladder on account of the patient's serious condition. Recovery was uneventful. Three months after the wound had definitely closed, a small, hard nodule was noticed in the scar, which at once impressed him as being malignant in character. A carcinoma of the abdominal wall developed, which evidently had begun in the wall of the gall-bladder. Patient was later operated by another surgeon and died soon after.

DR. KAMMERER said that during the past fourteen years, since the publication of Courvoisier's classical work, he had been operating on cases of cholelithiasis, and had never seen a case of recurrent gall-stones. When changes in the gall-bladder were found at operation, a primary cholecystectomy was indicated, as Dr. Meyer had already stated, because it was a well-established fact that patients with carcinoma of the gall-bladder generally had gall-stones. The macroscopic diagnosis of carcinomatous degeneration of the gall-bladder or of the ducts during operation was frequently impossible, and it was, therefore, better in such instances to remove the organ, when the appearance of the latter was not normal. Personally, the speaker said, he was opposed to primary cholecystectomy in every case.

DR. GEORGE E. BREWER said that Dr. Lilienthal, in his paper, did not advocate removal of the gall-bladder in every case of cholelithiasis, and the indications he gave for removal of the organ were very definite. Dr. Brewer said he would go even a step farther than the reader of the paper and advise the extirpation of every gall-bladder that had been rendered functionless, or the walls of which were thickened or changed in appearance, or one in which the cystic duct was obstructed. Another indication for removal of the gall-bladder was where a stone was found impacted in the pelvis of the organ, because mere removal of the stone in such a case usually resulted in absolute stricture. A gall-bladder containing purulent fluid should always be removed; otherwise, an infected cavity was left which would later cause trouble. Dr. Roswell Park had made the assertion that we should remove the gall-bladder as we would the appendix; that, like the latter organ, it was a relic, and of no particular use to the individual. Dr. Brewer said that where we had a gall-bladder which was not in direct connection with the duct system, or which was the seat of inflammation, it ought to be removed. If there were any indications for removal of the gall-bladder, it should be done at the primary operation. A secondary cholecystectomy was difficult, and the operation should be compared, in difficulty, to a secondary nephrectomy after suppurative disease of the kidney.

DR. JOHN B. WALKER said that he also had seen two fatal cases from persistent oozing after operation on the gall-bladder. The speaker agreed with Dr. Lilienthal that in those cases where the gall-bladder was in a gangrenous condition the cystic duct should *not* be closed.

DR. L. W. HOTCHKISS said that personally, in his work on the gall-bladder, he had been rather conservative in the choice of cases for removal of the gall-bladder. He spoke of the desirability, and necessity often, of draining through the cut cystic duct in certain acute cases, after cholecystectomy, and said that, instead of suturing it, he had clamped and cut it, and drained to the site with a rubber-tube drain submerged by a moderate gauze packing, and allowed it to heal by granulation.

DR. E. LIBMAN (by invitation) said that the usual impression was that bacteriæmia was very common in cases of gall-bladder disease and appendicitis. In his experience it did not occur very frequently. In appendicitis it must be very common. These observations were confirmed, he believed, by the fact that metastatic

dépôts in the joints, in the subcutaneous tissues, or in the viscera apart from the liver and lungs almost never occurred in such cases. It seemed that in some of the cases of disease of the appendix or liver the progress of the infectious process was stopped in the liver or in the lungs. And in some of these cases, while there might be bacteria in the blood current between the focus and the lungs, none were found in the peripheral circulation. Of course, in fatal cases, general ante-mortem invasion might occur.

To the cases in which bacteria were not found in the peripheral veins and the lungs were found to contain metastatic foci, Dr. Libman said he applied the term "non-systemic or partial bacteriæmia."

DR. LILIENTHAL, in closing, emphasized his belief that any gall-bladder that was bad enough to be operated on ought to be removed. Even in a case of uncomplicated cholelithiasis, with multiple stones, in which operative interference was demanded, a cholecystectomy was preferable to a cholecystostomy, and less dangerous and difficult than the latter operation. He saw no reason why such a gall-bladder should be allowed to remain and make trouble later on. If the gall-bladder was thickened and there were gross macroscopical changes, it certainly should be removed, because it was prone to become the seat of malignant degeneration.

In dealing with cases of cholelithiasis, one could never tell how long the stones had been in the gall-bladder, nor could the condition of the interior of the organ be determined by mere inspection of its exterior. Such a gall-bladder might possibly be gangrenous all the way through to the serosa, and this fact would never be disclosed by any operation short of cholecystectomy. That the mortality of the operation was low was shown by the fact that he had only had one death in forty-two cases, many of whom were in a very desperate condition at the time of operating, with high temperature, sepsis, etc.

Dr. Lilienthal said that all of his forty-two cases were not operated on through the rectus incision; only the last twenty-five or thirty were done by that method, which he regarded as very satisfactory. The incision could be made as long as was necessary, although he had usually found four inches long enough.

Dr. Lilienthal said that Dr. Kammerer's second case, in which a number of stones in the common duct were overlooked, was an extremely interesting one. In order to prevent the possibility of leaving stones behind, the speaker said he first put in a retraction

suture through the cystic duct underneath the clamp, and then, after dividing the duct, he tied off the cystic artery, which could be done very easily. With that danger of hæmorrhage out of the way, the operator could make a thorough search, and if there was any trouble afterwards, it was due either to the presence of adhesions, or to a re-formation of stones, or to something that could not have been avoided. It was certainly not due to the cholecystectomy. Although cholecystectomy was the most radical operation that could be done on the gall-bladder, he did not consider it any more dangerous than appendicectomy nor cholecystotomy. If the case was a simple one, neither operation was dangerous; while if it was a serious case, cholecystectomy was less dangerous than cholecystotomy.

In answer to the question whether he would leave the cystic duct untied in acute cases, Dr. Lilienthal said he thought that precaution would be unnecessary if the duct looked normal, without showing any evidence of gangrene, and if there was no cholangeitis. If the latter condition was present, he would leave the duct untied. If the common duct was perfectly free, it furnished a natural and proper method of drainage into the bowel. If a good-sized probe could be passed through the cystic duct, there would be no necessity for slitting the common duct.

Dr. Charles L. Gibson related the history of a woman who was first operated on by another surgeon for empyema of the gall-bladder in 1901. She came under Dr. Gibson's care early in 1903, and was operated on by him on January 16 of that year. She then had a discharging sinus as the result of the previous operation. Upon excising the sinus and exposing the gall-bladder, the latter was removed and found to contain a gall-stone of considerable size and a small strip of iodoform gauze. The gauze was not in the gall-stone, but wrapped around it. The gall-stone in this case, Dr. Gibson said, had formed inside of two years.

INTESTINAL OBSTRUCTION FROM ADHESIONS DUE TO EMPYEMA OF GALL-BLADDER; SPONTANEOUS DISCHARGE OF THE SLOUGHING GALL-BLADDER.

Dr. Gibson presented a specimen taken from a woman of fifty-nine, who entered the hospital in September, 1903, complaining of symptoms of intestinal obstruction which had been present for four days. Some features of the case excited the suspicion of gall-stones. On opening the abdomen, the obstruction

was found to be due to an inflammatory mass composed of omentum and infiltrated intestine occupying the region of the descending colon. Upon inspection of the gall-bladder, it was found to be filled with pus and a number of large stones. These were removed and the gall-bladder drained. An artificial anus was made in the cæcum, and in the course of a few days the inflammatory condition in the region of the descending colon subsided, and ten days later the patient began to have some movement by the bowels. Her convalescence was interrupted by the onset of some acute illness, and it was four months before the artificial anus finally closed. Two weeks after the original operation, a sloughy mass presented in the wound, which was identified as the necrotic gall-bladder.

CHOLECYSTOTOMY.

DR. OTTO G. T. KILIANI presented specimens of gall-stones removed from a woman twenty-four years old, whose family and previous history presented no interesting features. Five months ago she began to complain of pain in the epigastrium, with vomiting, diarrhœa, jaundice, and chilly sensations. The jaundice persisted three days. These attacks recurred each month with increasing severity, the last one occurring two weeks ago. The stools during these attacks were lighter in color than usual.

Operation, February 24, 1904. A four-inch incision through the right rectus muscle revealed a normal looking gall-bladder. This was opened, and several stones of the mulberry type were removed. The gall-bladder was immediately closed with two layers of silk sutures. The abdominal wound was also closed, with the exception of a small gauze drain leading to the gall-bladder.

CHOLECYSTECTOMY.

DR. KILIANI presented specimens removed from a woman who, upon her admission to the German Hospital on March 2, 1904, was so sick that no history was obtainable. She was operated on the following day by Dr. Kiliani. The gall-bladder was found much thickened and enlarged, and about to perforate at its base. It was incised and two large and several small stones removed. Cholecystectomy was then done and the cystic duct closed with chromicized gut. The wound was drained to the stump of the cystic duct and the surface of the liver, where the gall-bladder had been adherent. The outer wound was closed, excepting for drainage.